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ABSTRACT

In summer 1990, the conference "Education 2000: A Visionary Odyssey" was held at the University of Oregon, in Eugene. The conference aimed to provide information vital to education's future and promote collaboration among people representing all levels of education, business, the local community, and state government. This article summarizes major speakers' observations, addressing first the challenges facing us globally, on the societal level, and in education. Following a discussion of new information and possibilities for gaining insights and making necessary changes, the article suggests implications for action affecting education. Robert Ornstein, underscoring recent population growth and large-scale environmental deterioration over recent decades, faulted the human nervous system for perpetuating old-mind consciousness in a new, ever-changing world. Dee Dickinson observed that the major social, cultural, ecological, and economic problems we have helped create are difficult for old-mind beings to confront, because they are not sudden, dramatic changes. Shirley McCune envisioned the next 5 years as the most chaotic, stressful, and opportunistic ever experienced. These and other conference speakers stressed the critical need for change, the importance of vision, and the necessity of making major value shifts. Each expressed specific ideas for change and encouraged cooperation of the whole community in the educational change process. A sidebar summarizes local participants' responses. Information about next year's conference in provided. (4 references) (MLH)

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INSIDE

Around the State

Foster Grandparents Bring a Wealth of Wisdom, Practical Skills, and Lots of Love into Schools p.10

Candy Lane Principal Combines Computers and Fun for First Graders p.11

Albany's Clover Ridge Elementary School Pilots Drug Education Program p. 12

Oak Grove Students Take Responsibility for Environment p. 12

Math Comes Down to Earth with Hands-on Approach p. 12

Oregon City's Drug/Alcohol Program Receives National Recognition p. 13

Parents and Preschoolers Get Off to an Even Start p. 13

Buddy Program Brings Students Together at Albany's Waverly Elementary School p. 15

Tiller Elementary Wins STAR SCHOOL Grant p. 15

Washington County Community Service Corps Program Gains Approval p. 16

Milwaukie Students Increase Listening Skills p. 17

Two Plus Two Program Injects Trained Students into Health Fields p. 17

Parenting Classes Offer Practical Advice for Rearing Children p. 18

DARE Says No to Drugs at Oregon City's Candy Lane School p. 19

Miscellany

Parent Involvement Boosts Student Success p. 20

New Job Growth Projections p. 20

Crack Babies Exact Heavy Toll p. 21

The Pay Gap Grows p. 21

Bulletins in Review

HIV/AIDS Education: Focusing on Factors That Influence Behaviors p. 22

Demographic Changes Challenge School Districts p. 23

Leaders Develop Visions for Successful Schools p. 23

Education 2000: A Visionary Odyssey

By Brooke Belcher and Marjorie DeBuse

In the summer of 1990, the conference "Education 2000: A Visionary Odyssey" took place at the University of Oregon in Eugene. It was sponsored by Lane Community College, Lane Education Service District, and the University of Oregon's College of Education.

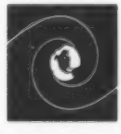
The goals of the conference were to provide information vital to our future in education, and to promote collaboration among people representating all levels of education, business, the local community, and state government. Over 500 participants came together to hear speakers and share information about the challenges we are facing in the world and in education today, about the new research and possibilities we have, and about the implications for education.

This article contains a summary report of the main points made by the major speakers at the Education 2000 conference. It addresses first the challenges facing us today, including challenges from a global perspective, challenges on the societal level, and challenges in education. It then discusses new information and possibilities available to us today that provide us with insights and models to make the changes necessary to meet the challenges. Next, it suggests implications for action at different levels, and especially for education. The article closes with "Oregonians Speak Out," reactions to and concerns about the information presented at the conference from the perspectives of local Oregonians. Information about next year's conference is included.

Challenges from a Global Perspective

Approximately thirty-thousand years ago, evolution put the finishing touches on the nervous system of the human being. Because the nervous system has remained essentially unchanged since that point in time, we are all walking about today with a system finely tuned to the world of three-hundred centuries ago. The average hunter-gatherers of that time needed only to meet basic needs related to sustenance, safety, and reproduction. These early people lived in a small world that changed very little. The largest social groupings consisted of twenty to thirty households or families.

Consequently, our inherited nervous systems of today, like those of our ancestors, continue to be best suited to dealing with short-term concerns within a relatively fixed world, punctuated only by occasional unexpected events. Our brain has evolved "to rapidly recognize and respond to sudden/dramatic/high contrast environmental changes, and to ignore or merely monitor gradual/subtle change" (Sylwester 1990). This occurs despite radical and ever-accelerating change around us. Robert Ornstein refers to this phenomenon as old mind consciousness in a new world.



Even though the inhabitants of the planet were affected heavily by events like the agricultural revolution, the Industrial Revolution, and world wars,

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and inventions like the steam engine, the typewriter, and movable type, the basic demands placed on the individual in the near past still remained essentially the same. More recently, we have known little else but change. Humanity is changing the world more now in each decade than our ancestors did in a million years. According to Ornstein, we are at a unique point in history in which what we do in Oregon can actually affect someone on the other side of the planet. The reason this has never happened before is that humanity has never been the force that it is now.

Ornstein underscored the overwhelming magnitude of the human population explosion that has occurred in the past several decades by citing the following example: From the dawn of humanity until 1942, 2.6 billion people were born, lived, and died on this planet. In the mere forty-seven years since 1942 (Ornstein's lifetime), another 2.6 billion people have been born. Now these billions of people with their "old mind" orientation have been linked to a technologically advanced world with satellites, lasers, and weapons that are beyond credulity. As a result, humanity has become a deadly menace to itself.

In the past humans have been able to adopt an outlook based on the "let's not worry about problems and concerns until we have a disaster" mentality. That simply does not work today. Humanity is a juggernaut due to sheer numbers. The day-to-day actions of individuals combine to create an incredible force, capable of creating great destruction.

Dee Dickinson reported we now have greater problems occurring at one time than we have ever had before, with major social, cultural, ecological, and economical concerns confronting us. Yet many of these major problems that we, ourselves, have created, such as pollution and ozone layer depletion, are difficult for us, as "old mind" beings, to see and react to because they are not sudden dramatic changes. Because they are gradual, subtle, and long term, the mind pays attention to them when they are new and different, but after they become a part of our lives, we no longer take particular notice of them.

Ornstein used the proliferation of nuclear weapons as an example. Newspapers of the 1940s included article after article protesting nuclear weapons, warning of their tremendous threat, and urging their elimination. People still have the same concerns, magnified by the fact that even with Russian and American arms reductions we still could blow up one Hiroshima each hour for the next seventy-eight years. However, we don't see the extensive press coverage or interest in the topic that occurred when the weapons were first developed. First came the hysteria, then, as these planet-threatening weapons become a more constant part of life, came complacency. This is a prime example of how the "old mind" responds strongly to a dramatic change or disaster and then basically forgets about it.

Those associated with reporting the world's news to us function with this "old mind" mentality. Ornstein referred to the stories featured by *Time* magazine as the "most amazing stories of the last sixty years." They included, for example, coverage of an inflation-ravaged Germany, Lindbergh's solo flight across the Atlantic, the 1929 stock market crash, and the beginning of World War II. What *Time* failed to notice, in Ornstein's estimation, were the truly important stories: the doubling of the world's population, the extensive deterioration of the environment, and the extinction of more species during the sixty-year period as the direct result of human actions than had suffered the same fate over the entire history of humanity.

Thus Ornstein describes us as "Neanderthals with a nuclear bomb." For the survival of the human race, we must see these unprecedented problems and develop effective solutions. The world is changing rapidly, but very few of the changes are ones about which we have made conscious decisions. Although many individuals do act irresponsibly for short-term personal gains, more and more people are becoming aware of the highly destructive nature of those actions. The big world, with its disappearing ozone layer, overpopulation, pollution, famine, is

Brooke Belcher *(left) is the Education 2000 Conference Director and Steering Committee Chair.* Marjorie DeBuse *(right) is an Education 2000 Steering Committee member and codirector of the Talented and Gifted Institute in the College of Education at the University of Oregon.*

slowly becoming a part of people's consciousness.

While we are beginning to see what is happening to our planetary home, our inherited tendencies toward nonaction still put us in a very precarious position. Ornstein believes we can and must consciously evolve—we must learn about our human tendencies and develop the means for seeing the "big picture" over time. Only in that way can we learn to live in a constantly changing, radically different world, and learn to recognize and respond to the kind of concerns that threaten us today. Education is clearly the key to helping us learn to consciously evolve.

Challenges at the Societal Level

Shirley McCune also called attention to the problems and crises in our time and stated we have no choice but to change. According to McCune, "The next five years of [our] lives are going to be the most chaotic, the most stressful, and the most opportunistic that [we've] ever experienced." This century has brought an unprecedented rate of change that shows every sign of continuing to accelerate.

For example, no one could have predicted how quickly the face of Eastern Europe could change, making the world more interconnected than ever before. We are becoming a global community—moving from ethnocentricity and into greater diversity. The problem is that we haven't learned ways of dealing with one another. Our organizations are shifting from hierarchic and bureaucratic structures, yet "no one knows who's in charge." We are in need of leadership and structures to help us understand how we can work together. These changes must evolve in the next several years if we are to survive as a planet.

McCune explained that nations go through predictable economic stages. Most start as agrarian societies and move through industrial, service, information, leisure, and, finally, interglobal stages. In the United States today, we are a service society. To demonstrate this, McCune pointed out that the companies that employ the largest number of workers in the country are McDonald's, the federal government, Burger King, and Sears. We are now, however, rapidly moving into the information stage of economic development.

The advent of an information-based society creates three key new challenges: First, we will have to know how to use information productively. McCune refers to this as the development of information capital. Second, we will have to develop our human resources. McCune states, "Nations which invest in people and which recognize that human resource development is the most critical function of a nation state are the ones which will be the most competitive in the future." Her

This article is a summary of the main points made by the following major speakers and panel members:

Dee Dickinson, president and founder of an international educational network, New Horizons for Learning, based in Seattle, Washington.

Robert Ornstein, president of the Institute for the Study of Human Knowledge, and professor at the University of California Medical Center in San Francisco and at Stanford University. Coauthor (with Paul Erlich) of *New World New Mind.*

Linda MacRae-Campbell, educational consultant, author, and director of New Horizons for Learning.

Mark Milleman, associate with DeBianca-Berkman Group, a national consulting firm focusing on major organizational change in business.

Shirley D. McCune, president of Learning Trends, and senior director with the Mid-Continent Regional Educational Laboratory.

Art Costa, professor of Education at California State University in Sacramento, editor of *Developing Minds: A Resource Book for Teaching Thinking*, and past president of the National Association for Supervision and Curriculum Development.

Brooke Belcher, parent, Eugene.

Larry Brown, businessman and president of Jerry Brown Co., Junction City.

Carl Hosticka, University of Oregon associate vice president, professor in Department of Planning and Public Policy, Oregon state legislator.

Mariya Masters, teacher, Springfield School District.

Jerry Moskus, president, Lane Community College.

Margaret Nichols, superintendent, Eugene Public Schools.

point is not that we must be first in everything, but as a nation we are presently not producing the kind of human resources we need.

And third, we must develop organizational capital. Again, according to McCune, "What you can become as an adult is dependent in a large measure on the organization you work in and the people with whom you associate. If the organization is not led by people with high levels of values and high levels of skills, it means you can't grow."

A number of forces are contributing to the restructuring of society at this point in time. McCune cites the following:

- *Economic forces*: We are developing a new economy where physical work is being replaced by mind work.
- *Social/Demographic forces*: We have a new population that is older and increasingly diverse.
- *Organizational forces*: We have and need new organizations that support knowledge creation and individual empowerment.
- *Educational forces*: We are beginning to develop new ways of learning that enhance thinking and information processing abilities.
- *Behavioral forces*: We have and need people who can function at higher physical, social, and intellectual levels.

In table 1, McCune outlines key characteristics of the industrial society we are rapidly leaving behind and juxtaposes them with the characteristics of the information society we are currently creating.

McCune believes schools not only must reflect the changes needed to successfully move our society into the information age, but they must also be the place where the children who will define the future of our society are taught needed skills: "If education doesn't work, and work at high levels, there is no way we can have the kind of economy we want, maintain a democracy, and have all the other things we thought were our birthright."

TABLE 1

Industrial and Information Societies Compared

Industrial Society	*Information Society*
Unskilled temporary jobs	Skilled jobs, career-oriented
Simple tasks	Complex tasks
Accountability by supervision	Accountability by observation of performance
Single occupation	Multiple occupations
Stable employment	Changing employment
Close to production	Close to customer
Dependence on a bureaucracy	Greater independence and autonomy
Linear thinking	Organic thinking
Stable markets	Changing markets

Challenges in Education

Ornstein feels that our educational system continues to teach people to live in a fixed world. In his view, this approach functioned quite effectively until shortly after World War II. Prior to about 1950, we could prepare children to live in basically the same world in which their parents grew up because change came so slowly. Unfortunately, that is no longer the case. However, we continue to try to educate our children to live in a past that no longer exists. We are investing heavily in an educational system that is primarily engaged in developing inflexible minds best suited to the "old world" we will never again see.

Art Costa reinforces the notion that we are not adequately preparing students for the future. He describes our educational system as one based on the industrial model, with its emphasis on factual recall, competition, fragmented information, coverage of content, plus a focus on exploitation of the earth's resources.

This orientation, according to McCune, prepared students to become blue collar workers, able to get to work on time, endure dull, repetitive work, and reduce and standardize their responses. She says we have trained students to be dependent on others for their knowledge, thereby promoting passive rather than active learning.

McCune states that what businesses need today are people who (1) are motivated, (2) have a sense of ethics, (3) are self-confident, (4) have personal management skills, (5) have career development skills, (6) work well in groups, (7) collaborate, (8) are able to work with people different from themselves, and (9) can problem-solve, think creatively, and process information effectively. Thus, what we need now is "as different from the old way as the Model T is from the supersonic jet."

Our schools must get beyond the "old mind, old world" goals, in order to prepare students to meet the challenges of the world of today and avert the potential global disasters of the future. This will require the development of new goals for education. We need to develop self-

directed learners who are independent and self-reliant. Learning must be viewed and valued as a lifelong process, with a focus on learning to think rather than on recall of facts. An added bonus from making a fundamental shift in our approach to education will be greater self-actualization of each individual.

In the panel discussion entitled "Education: Why Change? Why Now?" Mark Milleman suggested that we have known for the past twenty-five years that education must change in the ways suggested above. He asked the audience to consider what it is that keeps us from acting on what we know. The panel members discussed issues related to this question. Ornstein feels that the reason we are having trouble changing is that we are not seeing the slowly evolving crisis in education—we are looking for the disaster. He believes we haven't yet clearly defined the problem, so the organizational structures are not in place to facilitate necessary changes.

Very few people will take a stand for change, states Milleman. We are in the difficult position of trying to see beyond the old paradigm within which we were educated and currently function so we can appropriately modify and change our basic assumptions about how and why the educational system operates. Once we learn to see the necessary alternatives, we will be able to educate our children in such a way that they will be able to function successfully in the world of the future.

Linda McRae Campbell expressed the opinion that many educators lack an understanding of the change process and don't know how to initiate, implement, or institutionalize significant restructuring. She feels that there is a "lack of networks or channels to provide access to leading edge information that can help us do our tasks better." Because of this, she advocates institutionalizing ongoing staff development and building in time for educators to renew their knowledge base.

Shirley McCune pointed out that we are used to bureaucratic, hierarchical organizations. Because of this, we lack the collaboration and group process skills necessary to implement major changes in education.

Margaret Nichols cited the "blaming syndrome" as one example of this lack of collaboration. In her opinion, teachers tend to blame administrators for problems in education, administrators blame unions, and both blame legislators. There is a sense that "someone is to blame," and energy that could be invested in change is wasted on trying to determine the guilty party.

Fortunately, we have at our disposal some of the crucial information needed to bring about the needed shift to a new paradigm in education.

New Information and Possibilities

Although the conference speakers indicated the critical challenges we face today, each of the speakers also expressed powerful new possibilities that can enable us to change and meet those challenges. Ornstein stated, "We have the chance now to make the world anew, because we know some things we never knew before. We have the ability to teach in ways unimaginable." He feels we can move to consciously take control of our society's evolution. He holds out great hope for and belief in our ability to change our consciousness. He cited the radical shifts in attitudes and practices that have occurred in areas such as civil rights, women's rights, and AIDS education as examples of how change can occur on a grand scale when people develop adequate awareness and then take action. Because "school is one of the biggest mind-changing events in anybody's life," Ornstein feels much of what can and must occur in the near future to facilitate crucial change will depend on the thoughts and actions of educators.

Dee Dickinson expressed the power of our new possibilities:

> We have more information than ever before about the human mind and how it grows, develops, learns; about human development and how we can all foster our capacities more fully. We have a growing number of schools that are applying this information with the result that both teachers and students are being more successful. We have technology which enables us to exchange that information widely.

According to Dickinson, this rapid escalation of both change and information has led to important new educational understandings:

1. **Everyone can learn**. Dickinson feels we have not fully accepted the fact that everyone is capable of learning. Why else, he posits, would we predict and produce failures? Why do we perpetuate the bell curve?

2. **Everyone learns very differently**. We now know that all people do not learn in the same way, that they have modalities through which they learn best. They have different personalities and multiple intelligences. Dickinson explained Howard Gardner's (1983) thesis that human beings have multiple "intelligences" rather than just a single type, and all of them are of enormous value to society. These intelligences include linguistic, mathematical, visual-spatial, kinesthetic, musical, interpersonal, and intrapersonal aptitudes. These understandings encourage us to teach using a variety of strategies designed to encourage comprehensive growth and development.

3. **Everyone can learn more efficiently**. Dickinson provided examples of people learning more efficiently and with greater ease by utilizing strategies such as cooperative learning, accelerated learning, and integration of the arts into the regular curriculum.

4. **Everyone can be more intelligent**. Marian Diamond's research (1988) seems to indicate that the brain can change physiologically at any age as a consequence of learning and experience.

The advent of rapidly expanding new information relating to teaching and learning, the role of schools, and the nature of the learner places us in a position to effectively restructure and redesign our schools so students can become better prepared for the world of today and tomorrow. The challenges can be ad-

dressed if we attend carefully to the implications of all we now know.

In the smaller breakout sessions, other presenters offered overviews of additional concepts and strategies being implemented in education today that enhance human learning, promote success, and address many of our future needs. Among these were cooperative learning, integrative curriculum, autonomous learner models, thinking skills, self-directed and interest-directed learning, learning styles, multiple intelligences, and application of new understandings of the human brain. All such approaches to learning are representative of appropriate responses to the concerns expressed above. Further implications for action follow.

Global and Societal Implications

Humanity must change before it creates disasters on a global scale. As Ornstein said, "We must consciously take control of our society's evolution. If we know where we want to go, we can do it." This implies the following:

•We must determine clearly what is needed for these times, recognizing the subtle changes affecting us on a large scale.

•We must change our limiting values and belief systems and begin to work as a world community to create the future, rather than unconsciously allowing the development of futher destruction.

•We must begin to think and understand in terms of a larger perspective, and learn to notice long-term effects through the use of effective technological instrumentation that can make such changes graphic and comprehensible.

•We must think in terms of the good of the whole rather than of short-term benefits to a limited number of individuals.

•All of our institutions must come to an understanding of the times we live in and the qualities we must develop. The media can be especially helpful by providing ongoing coverage of stories related to subtle changes.

•We must think of education in broader terms, with the realization that we all must learn and change.

•We all must be educated, as members of society, as educators, as parents, as students, as business people, as government officials.

•We all must begin to see these vital requirements and be active forces for change.

Shirley McCune said, "Change is going to happen, but the difference is people who can anticipate it and position themselves will be able to exploit the inevitable. They will see the future coming and know what they have to deal with."

Implications for Education

Education has a powerful role to play in the change that is necessary for our future. As a starting point, all the speakers reminded us of the importance of having a vision for the future before we can truly create change. According to Costa, what we can envision, we can create. He related several stories illustrating how people are changing the world "by deliberately changing their internal image of reality." In thinking about the educational system, we must know what it is we value and the outcomes we desire; only then can we decide which programs, services, and approaches to teaching and learning we want and need. We must learn to actively envision the kind of education we want and need to provide. Several of the speakers presented their own vision for the future.

McCune expressed her vision on three levels. On the individual level, she envisions all children learning effectively, becoming well prepared for life in an ever-changing technological society. On the organizational and school level, she sees empowering climates becoming the norm, with programs that truly support total growth and development of both students and staff. On a societal level, McCune envisions schools becoming the hub of learning communities in which everyone is involved in learning, parents are respected and involved, and people of all ages are being served in a variety of ways. McCune feels we must not only have such a vision, but also take a leadership role in bringing about these changes. In her words, the real issue we face is whether or not we can develop the leadership essential for creating the kinds of schools we need to produce a generation of healthy children.

Costa drew his vision for the future from the ancient Greeks and their concept of Paideia. This is a society in which learning, fulfillment, and becoming human are the primary goals, and all institutions are directed toward that end. He explained that Athenian society was designed to bring all its members to the fullest development of their highest powers. They were educated by their culture — by "paideia." He sees self-development and the promotion of lifelong learning as the "central project" of society. Costa also underscored the notion of schools being used by everyone, making them the focal point of learning in society, or what he calls "homes for the mind."

Dickinson simply stated that "one of the highest goals of education is to contribute to society self-actualized human beings who will in turn contribute to their world through their wisdom, expertise, and experience."

In addition to making vision statements, several of the speakers also discussed what they felt to be specific implications for educators in response to the array of challenges we are now facing. Key points from each presentation follow.

Robert Ornstein encourages us to make humanity the center of the curriculum. This implies helping people understand where they came from, what their life has been, and what it can be. The ability to use the mind also needs to be central to the curriculum. A key to conscious evolution is learning to be flexible, and to not fear change.

Shirley McCune focused primarily on restructuring schools as the means for addressing future concerns. This restructuring would focus on community-based, personalized education that would empower people to become lifelong learners and knowledge-creators. She argues that we must make major shifts in our values in order to effectively bring about restructuring. She states, "The heart of restructuring is getting our values together. If our values don't shift, our behavior isn't going to shift." She suggests we move in the following ways:

• *From emphasizing schooling to emphasizing learning*. We need to focus on lifelong learning, and learning in diverse ways rather than just on being "in school."

• *From emphasizing accreditation to emphasizing performance*. We now give a high school diploma for sitting quietly for twelve years. We must learn to measure performance in reading, writing, speaking, and working in groups. This implies moving away from standardized tests that measure little beyond vocabulary and factual recall toward measuring performance through alternative means such as portfolios in order to help students develop the skills they will truly need.

• *From fragmentation to wholistic approaches*. To learn, students need frameworks of association in their minds that can be generated through integration of the curriculum.

• *From emphasis on sorting of students to a focus on equity*. Students vary widely in terms of culture, economic status, social background, educational opportunities, and intellectual, social, emotional, and physical abilities. Eighty-five percent of the workers who will be entering the work force between now and the year 2000 are females, immigrants, or minorities. These are the three groups with which schools have generally done least well. Approaches to teaching and learning must increasingly recognize and respond to individual differences.

• *From picking winners to producing winners*. Our students will need to have strong interpersonal skills for working in networks rather than bureaucracies. The focus must shift from a competitive, hierarchical orientation to a collaborative, cooperative one in which everyone is encouraged to develop to their fullest potential.

• *From emphasis on factual recall to emphasis on thinking skills*. Educational processes at every level must focus on the skills that are necessary to translate understandings into effective behaviors.

Art Costa outlined the three major decisions we make relating to curriculum: (1) What are the goals we are trying to accomplish? (our purposes and outcomes); (2) How shall we deliver those goals? (our

TABLE 2

Indicators of Quantity and Quality

Quantity	*Quality*
Amount of time on task	Relevance of learning
Number of questions teachers ask at each level	How a student behaves when he/she doesn't know an answer
Scores on achievement tests	Student-to-student interaction
Class size: Numbers of students/ratios of students to adults	Use of all senses
Length of time in school	Transcends the classroom to life situations
I.Q. scores as a basis for grouping	Appeals to emotions: joy, laughter, love, and fun
Numbers of days in attendance	Long-term memory
Minutes of instruction	Intrinsic motivation
Percentage of objectives attained	Higher levels of thinking
Number of competencies needed for promotion/diploma	Cooperative learning
Task analysis into units	Future oriented
School effectiveness based on published test scores	Stimulates imagination, fantasies, dreams
Number of As, Bs, Cs, and so forth	Contributes to self-awareness
Gain scores	Problem oriented
	Integrates skills/content processes
	Divergence/creativity of response
	Enhances differences

instruction, materials, organization); and (3) How will we know if we have accomplished our goals? (our assessment, monitoring). He then asserted a key problem with education today is that tests rather than goals are driving the system. This is largely because the goals of education in the disappearing industrial age were based on factual recall and specific standardized answers. Tests that determined a student's ability to store and retrieve facts have been quite effective. We have worked very hard to make learning quantifiable; in so doing, however, Costa claims we have replaced "what was educationally significant and difficult to measure by what was insignificant and easy to measure."

Costa argues our goal has become that of educating people to pass tests while ignoring the goals and curriculum that would help our students lead satisfying and productive lives as contributing citizens, successful workers, and fulfilled human beings. Costa says, "How much we've evaluated, how well we've taught that which is not worth learning."

Costa's recommendations for change include: (1) clarifying goals (developing a mission, envisioning desired outcomes, operationalizing objectives); (2) changing the role of teacher to coach, decision-maker, and knowledge manager; (3) focusing more on group dynamics, interpersonal communication, conflict resolution, and development of empathy; (4) enhancing diversity by strengthening a variety of teaching styles and recognizing and developing the unique qualities of individuals; (5) networking with parents, community agencies, law enforcement, business and industry; (6) abandoning the old goals in curriculum development and focusing more on teaching the key concepts of a discipline and modes of inquiry that will improve transference to other settings; and (7) encouraging action research in education that focuses on experimentation, new knowledge production, and monitoring, collecting, assessing, and reporting data in a variety of ways.

Costa sees a new role for school administrators as facilitators of decision-making, carriers of the vision, monitors of school climate, and mediators for the staff's intellectual and group process growth. He would like to see administrators come to trust teachers and their ability to plan curriculum, to collect evidence of student growth, and to evaluate the curriculum.

Dee Dickinson is optimistic, believing that many of the suggestions made by speakers at the conference are, in fact, beginning to occur. Dickinson suggested the following list of emerging trends:

1. Changing belief systems—seeing what is possible at every age and ability level. Implementation of what the research shows.
2. Emphasizing individual differences as strengths through which to learn.
3. Implementing of more active and interactive learning and teaching.
4. Integrating the body, mind, and spirit in teaching and learning; placing at least as much emphasis on process as on content.
5. Ensuring that effective tools of learning are shared with all teachers, and informing teachers of new research.
6. Reinstating the arts. Dickinson states, "[The arts] are the major pathways for learning for many students and, for everyone, they make learning more dynamic, memorable, exciting."
7. Expanding our use of technology, using it to explore our own intelligence and access information as well as teach basic skills.
8. Finding new ways of assessing learning.
9. Changing educational and political policies to reward success.
10. Restructuring teacher training; changing the role of the teacher from being the primary source of information to that of learning coach, mentor, facilitator, diagnostician, and prescriber.
11. Restructuring the school day to allow for training, and implementation of technology to get important information to teachers.
12. Implementing decision-making through community-based collaboration, rather than achieving it by school personnel in isolation. Including parents,

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students, and other community members in the process.

13. Creating an international and multicultural context for education.

14. Developing community learning centers that focus on lifelong learning.

Conclusion

The 1990 conference was an invitation to explore the future of education. Speakers reviewed the challenges we face, the information we have to meet those challenges, and the implications for society and for education. They emphasized the critical need for change, the importance of having a vision, and the necessity of making major value shifts. Each expressed specific ideas for change. They all encouraged the cooperation of the whole community in the educational change process, underscoring that we all have roles to play in creating the educational systems we need for our future. (Tapes of the main sessions from the Education 2000 Conference are available by writing Education 2000, UO Continuation Center, 1553 Moss St., Eugene, OR 97403 or by calling 503-346-3537).

References

Diamond, M. *Enriching Heredity: The Impact of the Environment on the Anatomy of the Brain.* (MacMillan) New York: Free Press, 1988.

Gardner, H. *Frames of Mind*, New York: Basic Books, Inc., 1983.

Ornstein, R., & Erlich, P. *New World New Mind.* New York: Simon and Schuster, Inc., 1989.

Sylwester, R. Course description, 1990.

Oregonians Speak Out: Final Panel Summary

In the final panel, "Where Do we Go From Here?", speakers from several perspectives shared their insights and concerns relative to the information presented at the conference. Larry Brown, representing the local business community, encouraged educators to "step forward and be the experts in education for the entire community. Tell us about what you are learning, and how to make learning the hub of the community." He personally welcomed the ideas and values expressed in the conference and expressed hope that educators will help bring this kind of information to community, family, and business. He also called attention to the "value-driven" planning we need to do together.

Both the teacher on the panel, Mariya Masters, and the parent, Brooke Belcher, called attention to the fact that many parents are not aware of the world that their children will be living and working in. In order for them to support the changes in education, parents need to learn how rapidly the world is changing, and what that means for their children. While many parents are very focused on what they think will contribute to the highest development of their children's potential, they are too often overlooking the additional perspectives needed for a realistic assessment of their children's future needs. They need to become aware of new information about learning and developing human potential for our future so that they support and work for appropriate restructuring.

Jerry Moskus, president of Lane Community College, expressed how difficult it is to have to devote so much time to ensuring funding is available for education, rather than being able to emphasize improvements in teaching and learning. He stated that he highly values collaboration among representatives from the various levels of education, and feels the state could emphasize those types of efforts by providing funding and other forms of support.

Carl Hosticka, Oregon House majority leader, spoke of what he faces in the legislature as a consequence of the competing values in society. He is very aware of the public's need for accountability—people want to know what they're getting for their money. They want to see high test results and diplomas that show the system has yielded a good "product." He feels that if we try to move to "a more open system, centered on the needs and capabilities of the learner," we may have difficulty confronting the accountability issue in a way that will demonstrate to the public that they are paying for an effective system. Hosticka sees the need for this type of accountability as potentially contradictory to the new goals of a learner-centered system. However, Belcher asserted adopting new goals does not prevent us from monitoring and assessing our progress to ensure the outcomes we desire. It simply demands a shift in the assessment to match the goals we wish to achieve, accompanied by a shift in what we value.

Hosticka also stated he would like the legislature to be able to empower individual districts to make decisions about education, and have fewer state-level imposed restrictions.

Finally, Hosticka expressed concern that much of the public is still interested in going "back to the old model of education," and a larger proportion of the public must share the kinds of values this conference is talking about in order to facilitate these important changes. Therefore, he suggested "a better interchange between education and the community."